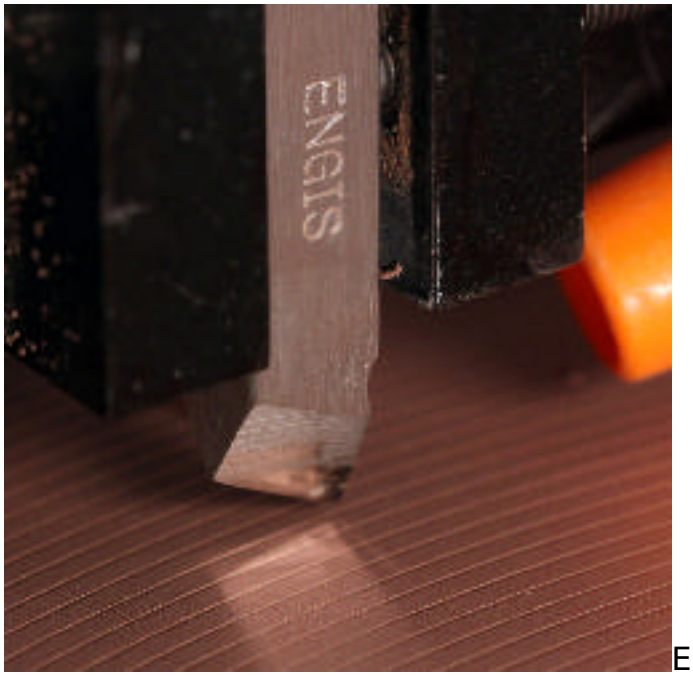
Lapping Plate Conditioning Device Eliminates Sources of Variability



Engis Corp., a leading worldwide provider of superabrasive systems, has introduced its FastLap Facing Device, an optional upgrade for its FastLap series of lapping and polishing machines. Engis has globally pioneered the development of facing devices for the purpose of in-situ lapping plate preparation.
Lapping plates conditioned with the FastLap Facing Device produce more consistent surface finishes and more predictable removal rates, helping manufacturers achieve quality goals, reduce reject rates, and lower overall production costs.

The FastLap Facing Device uses a diamond tool bit to remove the top (worn) layer of the lapping plate, machining it flat to within microns (view video [1]). To produce a controlled surface geometry and texture, the device then makes a second pass, which machines a groove pattern that serves as the basis for structured embedding of abrasive particles. Plates reconditioned with a facing device show excellent batch-to-batch surface consistency.

The costs of raw materials in lapping operations, such as sapphire for optical components or gallium nitride for semiconductors, tend to be expensive. Further, lapping occurs at the end of the manufacturing process. A rejected part loses not just the value of the material, but all of the value-added manufacturing steps as well. As such, the predictable, repeatable and controlled results from the FastLap Facing Device can reduce total cost of operation while providing an additional quality assurance.

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http://www.mdtmag.com/product-releases/2011/01/lapping-plate-conditioning-device-eliminates-sources-variability?qt-video_of_the_day=0

Links:
[1] http://www.engis.com/fastlap-facing-device.php